parts with more and more *Lympha* daily.

13. The great inſtrument of the circulation of the blood is the *Syſtole*, or vibration of the heart, which yet would not be ſufficient from hindring the coagulation of the blood, without a continual ſupply of *Lympha* to dilute it.

An Exact Account of the Three late Conjunctions *of* Saturn *and* Jupiter, (*within the ſpace or leſs than ſeven months according to accurate Obſervations*) viz. Octob. 14. 82, &c. *Together with an Account of what other Conjunctions of them there happened for more than* 100: *years laſt; beginning at the year* 1563: *And a Table Computed whereby to make an Eſtimate of what other Conjnnctions have happened for the time paſt, or that will happen for the time to come. All by* J. F. Aſtron. Reg. *&* R. S. S.

WHilſt the Common People have dmired to ſee the two Superior Planets *Saturn* and *Jupiter* continue ſo near each other the whole year, and our Aſtrologers have affrighted them with fearful Predictions of direful events to ſuccede this appearance, the more Judicious are deſirous to know how often and at what time their Conjunctions happen, that by compareing their Tables of theſe Planets Motions with the obſerved appearance, they may be the better able to correct them and render them more agreeable to the Heavens. Examineing our Ancient Ephemerides I do not find that Three Conjnnctions of *Saturn* and *Jupiter* have ever hapned in one years ſpace, ſince they were firſt in uſe to this preſent. Thoſe of *Moletius* Calculated from the Alphonſine Tables indeed make three in the ſpace of Eight Months betwixt *Auguſt* 1563. and *April* 1564 incluſive. But the Ephemerides of *Stadius* Calculated from the *Prutenick*, make onely one, on the 26 of *Auguſt* of which *Junctinus* gives us the following Obſervation in the Preface to his Aſtronomical Tables. *Anno* 1563. *Auguſti* 24. *hora* 14. 36 *poſt Meridiem Aurangæ*, Jupiter *à parte ſeptentrionis cooperiebat quaſi* Saturnum, *qui erat à parte Meridionali, utraque autem harum Stellarum, in fine* 28 *gradus Cancri deprehendebatur*, *Riccioli* hence concludes that the Planet *Jupiter* covered ſome part of *Saturn* at this time. But without reaſon, for the words *quaſi cooperiebat* intimate not that the one did corporally cover the other, but rather that there was ſome ſmall Interval betwixt them. The *Caroline* tables make the viſible latitude of *Saturne* now 11′ 45″, of *Jupiter* 20 10′ both North, the Conjunction being ſome few dayes paſt: but becauſe their latitudes alter ſlowly we may hence conclude the difference 8′ 25′ to have been nearly their diſtance at that time, theſe Tables being grounded on the Tychonick obſervations made within leſs than 40 years after, and ſhewing the Latitudes of the Planets well at this time near 100 years later we may conclude to have anſwered them as well then; and if we conſider how ſmall a ſpace the diſtance of 8½ minutes appear to the naked eye in the Heavens, eſpecially betwixt two ſuch bright Planets as *Saturn* and *Jupiter* are, that the *Caroline* diſtance agrees very well with the words of *Juncti-*

Conjunction in fine ♋ *1563*

nus and that *Riccioli* was groſsly miſtaken,

1583. Their next Conjunction according to *Maginus*s Ephemerides founded on the Prutenick numbers, was *April* 29. 1583. in 21. deg. of ♓, the Sun being then in 17. deg. of ♉ ſo thatthe Planets riſing before him in ſignes of ſhort aſcention and with South Latitude this congreſs could not be obſerved by the noble *Tycho* who was mindful of it as appears by this note in pag. 55. of his Hiſtoria Cœleſtis. *May* 30. A. M. *quo primum poſt Conjunctionem Saturnum vidimus, captæ ſunt diſtantiæ inter Jovem & Saturnum per Radium.*

	h	'	°	'
hora	1	47	3	24
	1	50	3	24

The ſame Ephemerides ſhew the next Conjunction of *Saturn* and *Jupiter* 1603. *Dec.* 14. at noone, in 9° 36' of ♐
1603. but the Ingenious *Kepler* and our Sr. *Chriſtopher Heydon* found it by obſervation ſeven days ſooner, or the Seventh day of the ſame month in the Morning, in near Eight degrees of ♐ the Planets being then but newly emerged from the Rayes of the Sun.

The Ephemerides of the Learned *Kepler* Calculated from his own *Rudolphine Tables* make the next Conjunction 1623
1623. betwixt the 7th and 8th of *July*, in 6° 46' of ♌, the Planet Saturn being then only 4 minutes to the North of Jupiter, but this firſt Conjunction in the fiery Trigon hapning under the Suns beams was not obſervable.

1643. By the ſame Tables, and Ephemerides of *Eichſtade* Calculated from them, theſe Planets met again in the 25th dedree of ♓, betwixt the 15th and 16th of *Feb.* 1643, with a degree difference of Latitude.

1663. By the joynt conſent of *Eichſtades* and our *Wings* Ephemerides the ſame Planets were in Conjunction again, 1663 on the 10th of *October* at Noone in 13°. 30' of ♐ with one degree difference of Latitude, this Conjunction was obſerveable ſervable after Sun-ſet in our Latitude,but I hear not that any one obſcrved it.

In every of theſe years there happened only one Conjunction of the two Superiors, nor is it poſſible that there ſhould be more except the Heliocentrical Conjunction fall near the Oppoſition of the Sun; for then there may be Three, Two Direct, and One Retrograde, as has been within the ſpace of Seaven Months, betwixt *October* and *May* laſt incluſive, of which the true times are determined from the following Obſervations.

1682.		*h.*	'					
Octob.	5.	17.	51.	betwixt the Centers of *Sat.* & *Jup.*			34	54.
			54		rep.		34	48.
	12	13.h	49'.	betwixt their Centers			16	02.
			54.		rep.		16	04.
		14	03.	Betwixt their next limbes			15	22.
	17.	14	10.	Betwixt their Centers			20	09.
			17.		rep.		20	12.
			21.		again		20	14.
			25	Betwixt their next limbes			19	44.
		14	33.	Betwixt their remoter limbes			20	37.
						o	'	''
		15	09.	*Saturn* from the heel of *Caſtor*		48	32	25.
			14.	*Jupiter* from the ſame Star		48	45	05.
			17.		rep.	48	45	20.
			20.	*Saturn* from the ſame Star again		48	32	20.
			50.	Betwixt their Centers again			20	30.
	19	15	41.	Betwixt their remote limbs			26	02.
			45.	Their Centers			25	37.
			47.	Their next limbs			25	11.
	22.	18.	25.	Betwixt their Centers			33	19.
			29.		rep.		33	26.

The diſtances betwixt the Planets were meaſured with the Micrometer and ſixteen foot Glaſs, from the fixed Stars with the Sextant: thoſe of the twelfth day by my aſſiſtant my ſelf being then very ill of the Stone, the reſt by my ſelf. I took no diſtances on the ſeventeenth day for determining their Latitudes not being well able to abide longer in the cold Air: theſe if requiſite may be borrowed for preſent uſe from the *Caroline* tables, which by continual obſervations and experience I find not very much erroneous in the Latitudes of the Planets.

On the 22 day the Planet *Jupiter* was in conſequence of *Saturn* ſomething leſs diſtant from him then he had been obſerved on the fift day near the ſame hour. Hence the middle time betwixt theſe obſervations is pointed out for the time of their true Conjunction, but to determine it more accurately I ſhall examine the obſervations made with the Sextant on the ſeventeenth day which being neareſt the time are moſt proper for this purpoſe.

The correct Longitude of the Heel of *Caſtor* is now ♋ 0° 50′ 42″ its Latitude 51′ 40″ South. The Latitude of *Saturn* by the Caroline tables 56′ 20″ of *Jupiter* 41′ 30″ both North.

By the aſſumed Latitude of *Saturn* 56′ 20″ and his diſtance from the Heel of *Caſtor* obſerved and corrected 48° 32′ 30″. I find their difference of Longitude 48° 30′ 37″ therefore *Saturn* in *Leo* 19° 21′ 19″.

By the Latitude of *Jupiter* aſſumed 41′ 30″ and his diſtance from the Star 48° 45′ 20″: their difference of Longitude 48° 43′ 56″ and *Jupiter's* place in *Leo*, 19° 34′ 39″.

Hence *Jupiters* place in Conſequence of *Saturns* 13′ 20″ with which and the diſtance of their centers obſerved the ſame night 20′ 12″, I find the true difference of their Latitudes 15′ 20″ but half a Minute different from what I aſſumed it on the Authority of the Tables.

The apparent motion of *Jupiter* from the fourteenth to the eighteenth day of *October* by an Ephemeris exactly calculated and made agreeable to theſe obſervations is $29'$ $16''$, of *Saturn* $15'$ $01''$ both direct, hence the motion of *Jupiter* from *Saturn* in four days is $14'$ $15''$. I ſay therefore as four days motion or $14'$ $15''$ is to four days or 96 hours. ſo is $13'$ $20''$, which *Jupiter* is paſt the Conjunction of *Saturn*; to ninety hours or three days eighteen hours, the Time interlapſed ſince the Conjunction, which taken from the ſeventeenth day fifteen hours, the time of my obſervation gives the true time of the Conjunction of the two Planets on the thirteenth day One and Twenty hours after Noon or according to the common account, the fourteenth day at Nine a Clock in the Morning

At which time *Saturn* is with *Jupiter* in 19° $0'7\frac{1}{3}$ of *Leo* with $15'\frac{1}{3}$ more Northern Latitude.

The *Acta Eruditorum Lipſienſia* Pag. 366 make this Conjunction to have happened the ſame day in the ſame Longitude with the Eleventh Star of *Leo*; whoſe place they State in *Leo* 19° $04'$ Latitude 6 $16'$ North, with fourteen Minutes difference of Latitudes betwixt the two Planets. But their obſervation ſeems to have been made onely by the judgment of the bare eye, without an Inſtrument, which condered, I wonder not that it differs at all, but rather that the difference is ſo ſmall from this determination.

1683.

On the Nineteenth of *January* following viewing the Planets then both retrograde with the ſixteen foot Glaſs I found them approached within a meaſurable diſtance of of each other, that Evening I meaſured.

1683	h	′			′	″
Jan. 19.	6.	41.	betwixt their Centers		33	28.
		45		rep.	33	24.
		49	Betwixt their remote limbs		33	52.

January the 26 both the Planets being in ☍ to the Sun

	h	'				'	''
26.	6.	03	betwixt their Centers			15	08.
		7		rep.		15.	06.
	7	00	Betwixt their remote limbs			15	31.
		8	By *T. Smith*	rep.		15	29.
		12	Betwixt their Centers			15	05.
		14		rep.		15	02.
		17	Betwixt their next limbs			14	29.
		20		rep.		14	31.
		21		again		14	26.
	9	24	*Jupiter* from the heel of Caſtor		46	18	10.
		26		rep.	46	18	05.
		28	*Saturn* from the ſaid heel		46	08	50.
		30		rep.	46	08	55.
		37	*Jupiter* from the bright Star of the Lions Head ε		8	42	05
		39		rep.	8	42	05.
		40½	*Saturn* from the ſame Star		8	29	35.
		42½		rep.	8	29	40.
		48	*Jupiter* from the Lions Heart		8	18	00.
		50		rep.	8	17	55.
		52	*Saturn* from the ſame		8	29	35
		54		rep.	8	29	35.
		59	The Lions Heart from E in the Head		12	58	50.
	10	03	The heel of *Caſtor* from the Lions Heart		54	34	20.
		8½	The heel of *Caſtor* from E ♌		46	24	45.

Which laſt Three Diſtances are exactly the ſame I had meaſured them on the 24. at night.

	h	'			'	''
Jan. 30.	5.	28	Betwixt their Centers		11	36.
		30		rep.	11	33.
		34	Betwixt their remote limbs		11	58.
		36		rep.	12	01.
		38	Betwixt their next limbs		11	01.
	5.	41		rep.	11	00.

*Feb.*7.	7.	37	betwixt their Centers		28	35.
		40		rep.	28	34.

The diſtances of the two Planets from each other as alſo from the fixed Stars were taken at other intermediate times betwixt theſe, as often as the Clouds and ill weather of the ſeaſon would permit, but I tranſcribe them not, eſteeming theſe ſufficient for my purpoſe, which is to ſhew the true times of their apparent Conjunctions with their viſible places then.

From obſervations formerly made, I have determined the true places and Latitudes to this preſent time of

	s	°	'	''		°	'	''	
The Heel of *Caſtor.*	♋	0	51	10.	*Lat.*	0	51	40	*South.*
Bright * in the Lions head. Ɛ	*Leo*	16	15	27		9	41	07	*North.*
Lions Heart.	*Leo*	25	24	45		0	26	20	*North.*

And from the above recited Meaſures, the true diſtances of the Planets from theſe Stars *January* the 26th. at 9^{h} 40' p. m. as follows.

	°	'	''
Saturn from the Heel of *Caſtor.*	46	09	00
Jupiter from the ſame.	46	18	10
Saturn from the Lions Heart.	8	29	40
Jupiter from the ſame.	8	18	00
Saturn from the bright * in the Lions head. E	8	29	40
Jupiter from the ſame	8	42	10

Whence I collect the true places at this time.

	s	°	'	''		°	'	''
Of *Saturn.*	*Leo*	16	57	10.	*Latitude.*	1	13	10.
Of *Jupiter.*	*Leo*	17	07	10.	*Latitude.*	1	01	30.
Difference of *Longitude.*			10	00.	of *Latitude.*		11	40.

The Retrograde motion of *Jupiter* from *Saturn* in four days, betwixt the twenty ſixth and thirtieth of this Month, by my correct Ephemeris is 12' 15'' I ſay therefore as 12' 15'' is to four days or 96 hours; ſo is 10' 00'' the difference of the Planets preſent Longitudes to 78 hours or three days ſix hours, which therefore added to the time of that obſervation *January* the 26^{d} 9^{h} $\frac{2}{3}$ gives the true time of the

Con-

☌ *Jan* 29. 16. hours after noon or according to the common account *January* the 30. at Four a Clock in the Morning

At which time both the Planets are in ♌ 16. 41. $\frac{1}{5}$ with 11 $\frac{1}{2}$ min. difference of Latitude or Diſtance from each other. Which is further confirmed by the meaſured diſtances of the Planets on the 30 at night before recited.

On the 26. day at $9^h\,40'$ the ſuns true place was by my Tables in ♒ $17^\circ\ 21'\frac{1}{2}$ ſo that He was now about $\frac{2}{3}$ of a degree paſt their oppoſition.

Towards the latter end of the following *April* the Planet *Jupiter* began to approach *Saturn* again both being now direct; the Twenty Eighth at night with the Sixteen foot glaſs and micrometer I meaſured the diſtances

	h	′				′	″
April 28.	10	21	Betwixt their Centers		0	32	35
		23		rep.		32	33
		24	Betwixt their uext limbs			32	04
		26		rep.		32	02
	10	29	Betwixt their remote limbs			33	22
			This laſt not accurate, Clouds interpoſing				
May 7	8	59	*Jupiter* from the Lions Heart		10	59	00
	9	01		rep.	10	59	00
		3½	*Saturn* from the Lions heart		10	58	50
		5		rep.	10	58	50
		11	*Jupiter* from E in the Lions head		8	55	35
		15		rep.	8	55	40
		17	*Saturn* from the ſame Star		8	39	40
		18		rep.	8	39	40
			With the Micrometer				
		30	Betwixt their Centers			15	38
		33		rep.		15	37
		35	Betwixt their next limbs			15	03
		36		rep.		15	00
		40	Betwixt their remote limbs			16	02
		42		rep.		15	58
			With the Sextant again				
	10	20	*Jupiter* from B in ♍		38	11	45

		23		rep.	38 11 4
		26	*Saturn* from the ſame Star		38 10 55
		28			38 10 45
May 11	9^h	28′	Betwixt their Centers		20′ 02″
		31		rep.	20 02
16	9	22	Betwixt their Centers	dub.	34 04

From theſe Obſervations I ſtate the Diſtances of the Planets from the fixed Stars *May* the Seventh at 9^h $5'$ P. M. as follows.

Saturn from the Lyons heart	10	58	50
Jupiter from the ſame	10	59	00
Saturn from b in the Lyons head	8	39	40
Jupiter from the ſame	8	55	35

Hence the true Longitude of *Sat.* ♌ 14° 27′ 42″ Lat. 1° 12′ 46″ North
of *Jupiter* ♌ 14 26 37 Lat. 0 56 43 North
Difference of Longitude 1 04 Lat. 16 03

The Difference of Latitueds ſomething exceeds the Diſtance meaſured with the Micrometer, by reaſon that the Wind then ſhaking the Sextant permitted us not to be ſo exact as uſually, but the difference, being leſs than half a minute, I eſteem inconſiderable.

The diurnal motion of *Jupiter* from *Saturn* was now 3′ 15″, it holds therefore as 3′ 15″ one days motion, is: to one day or Twenty Four hours: ſo 1′ 04″ the Diſtance of *Jupiter* from the ☌ with *Saturn* to Eight hours, the interval betwixt the obſervation and following Conjunction, which was therefore 17^h after Noon, or according to the vulgar reckoning, *May* the Eighth at Five a Clock in the Morning.

At which time the true place of the Planets is ♌ 14° 28′ ¾ the difference of their Latitudes 15′ 40″ *Saturn* being ſo much more Northerly than *Jupiter*

In all or beſt eſteemed Aſtronomical Tables extant the mean motions of the Planet *Saturn* are too ſwift, or *Jupiter* too ſlow conſiderably, hence it came to paſs that they made the direct Conjunctions ſome days later, the Retrograde earlyer then they were found by obſervation.

Argolus gives the firſt Conjunction *October* the Twentieth at Noon, in ♌ 19° 55'. above ſix days later and 48 min. forwarder in the Eclipticĸ than it appeared. The ſecond *January* the Nineteenth at Midnight in ♌ 17° 56' above ten days earlier than it was obſerved, and 1½ deg. ſhort of its true place in the Eclipticĸ. The laſt Conjunction he hath *May* the Sixteenth in the Evening in ♌ 15° 35', Nine days later than it really was, and in above 1 deg. leſs Longitude.

			h '
By *Keplers* Rudolphine Tables *January* 26			9 40
The place of *Saturn* is	♌ 17° 21' 10''	his Latitude	1° 11' 18'' N
but was obſerved	♌ 16 57 10	his Latitude	1 13 10
Difference	24 00		1 52
The place of *Jupiter*	♌ 16 51 29	Latitude	1 04 28
obſerved	♌ 17 07 10		1 01 30
Difference	15 41		2 58

The Errors of the Caroline and Britiſh Tables of our Countrymen are ſomewhat leſs than theſe, but other Tables generally differ more, as thoſe that are deſirous to be informed will find by compareing their own Calculations with the Obſervations before recited.

Riccioli in the Second part of the firſt Tome of his *Almageſt*, has given us a Table of all the mean Conjunctions of the Two Superiors from the Creation to the year of Chriſt 2358. but very Courſe and incorrect. I have therefore made a New one for 43 Revolutions which are Compleated 853 Julian Years, and 235 days from their correct mean Motions. This being the Period of the greateſt Conjunctions after which ſpace of time they return to the ſame place of the Zodiack within ½ of a degree.

The Ordinary Conjunctions happen once in Twenty Years or more preciſely in 19. Julian Years and 312. days, in which time *Saturns* mean motion is 8^{s} 02° 48′ ½, *Jupiter's* the ſame above one Revolution.

These are commonly termed the Leſſer of the great Conjunctions, which continue in Signs of the ſame Triplicity for 10. Revolutions to each other or 198 Years: each Conjunction according to the mean Motions being 8^{s} 02° 48′ ½ removed from the Preceding, ſo that if any Conjunction was made upon the firſt point of ♈ the next following ſhall be in 2° 48′ of ♐ and all the following for 198 years ſhall fall in ♈ ♌ and ♐, ſigns of the ſame Triplicity.

But the Eleventh Conjunction after ſhall happen in the firſt degree of ♍ and the following ten Conjunctions in ♉ ♍ and ♑, Signs of the ſame Triplicity. Of theſe the Firſt is called by our Aſtrologers the Greater Conjunction.

But the greateſt is, when after 43 Conjunctions compleated in 853 years 235 days, the mean Conjunctions having been made in all the ſigns return to that point of the *Ecliptick* from whence they began: tho I muſt confeſs had I been to name them I ſhould have called thoſe the *Greateſt* which happen in the ſigns ♋ and ♌ becauſe then the Planets riſe higheſt, and are longeſt viſible in our Horizon, as alſo being near their North Nodes, they approach neareſt, and if they have any extraordinary influence (which *Naboyd* thinks either they have not, or if they have, we underſtand not) it muſt according to their Axiomes be ſtrongeſt.

Thoſe which happen in ♑ and ♒ I ſhould call the *Greater* or *Middle*, becauſe the Planets being then near their South Nodes, may approach each other again very nearly tho they riſe not high in our Horrizon, being in Southern Signs; the reſt might be accounted the *Leſſer* or *Ordinary*.

The mean Conjunction of *Saturn* and *Jupiter* this year 1683. was on the Fourteenth day of *January* old Stile at 12 hours after Noon in the Meridian of *London*, at which time the mean motions of both the Planets were 4^{s} 11° 45′

this may be the Radix for the Following Table.

By which to find the time of any mean Conjunction paſt or future neareſt to any place of the Zodiack *For times paſt*, ſubſtract the Longitude of the given place from the Longitude of the Radix $4^s\,11^\circ\,45'$ the reſidue ſeek in the laſt Column of the Table; if you find not the preciſe number take the next to it, againſt this you have in the ſecond Column the years and days, and in the firſt the number of Conjunctions paſt ſince any was made in that place, Subſtract the years and days from 1683 *January* the Fourteenth and the motion from $4^s\,11^\circ\,15'$ ſo have you the true time of the mean Conjunction, and Longitudes of the Planets then.

But *For Times to come* Subſtract the Radix from the given place; ſeek the Reſidue as before in the laſt Column; if you find it not, take that you find neareſt it, againſt which, as before, you have in the ſecond Column, the years and days; in the firſt, the Revolutions future, for Example.

If it were required to know when the laſt Conjunction in the firſt degree of ♒ Subſtracting ♒ or Ten ſigns from $4^s\,11^\circ\,15'$ the reſidue is $6^s\,11^\circ\,15'$ which ſeeking I cannot find in the Third Column of the Table, but I find $6^s\,12^\circ\,56'$ which is not two degrees more, and againſt them 516. years 57 days, and in the firſt Column 26. for the number of Conjunctions interlapſed. Subſtracting 516 years 57. days from 1683 *Jan.* 14. there remains 1166 years 322. days, which ſhews me that the Conjunction was in the year 1166 *Nov.* 18. and Subſtracting the motion $6^s\,12^\circ\,56'$ from $4^s\,11^\circ\,45'$ it points me to the place in $9_s\,28^\circ\,49'$.

Or if the time of the firſt Conjunction in ♎ to come were demanded. I ſubſtract the Radix $4^s\,11^\circ\,45'$ from Six Signs the reſidue $1^s\,17^\circ\,15'$ I ſeek in the Table but find it not, I take therefore the next to it $1^s\,20^\circ\,29'$ the next to it againſt which ſtands 357 years 124 days theſe added to 1683 *January* 14 give me the year 2040 and 138 days *May* the 18 for the time of this Conjunction and adding the $1^s\,20^\circ\,20'$ to the Radix $4^s\,11^\circ\,45'$ it makes $6^s\,02^\circ\,14'$ for the true mean Longitude of this Conjunction.

From the mean Conjunction the Apparent may be found by the help of Planetary Inſtrument, or the uſual Aſtronomical Tables; but the method I leave to the Judgment of the Skilful Artiſt, onely adviſeing him that in ſtateing theſe Conjunctions I have not made uſe of any extant Tables, but of ſuch Numbers as I have corrected by very late Obſervations compared with the Ancient.

J. F.

The Obſervatory
July 25.
1683.

A Table

A Table of the mean Conjunctions *of* Saturn *and* Jupiter *with their Intervalls in time and Motion.*

	Intervals.				
Revolutions cōplete.	Years	daies.	Motion.		
			s	°	'
1	19.	312	8.	02.	48
2	39.	258	4.	05.	37
3	59.	204	0.	08.	25
4	79.	150	8.	11.	13
5	99.	096	4.	14.	01
6	119.	42	0.	16.	50
7	138.	353	8.	19.	38
8	158.	299	4.	22.	26
9	178.	245	0.	25.	15
10	198.	191	8.	28.	03
11	218.	137	5.	00.	51
12	238.	83	1.	03.	40
13	258.	29	9.	06.	28
14	277.	340	5.	09.	16
15	297.	286	1.	12.	04
16	317.	2[illegible]2	9.	14.	52
17	337.	178	[illegible]	17.	41
18	357.	124	[illegible]	20.	29
19	377.	70	9.	23.	18
20	397.	16	5.	26.	06
21	416.	327	1.	28.	54
22	436.	273	10.	01.	43
23	456.	219	6.	04.	31
24	476.	165	[illegible]	07.	19
25	496.	111	10.	10.	08
26	516.	57	0.	12.	56
27	536.	3	2.	15.	44
28	555.	315	10.	18.	32
29	575.	261	6.	21.	21
30	595.	207	2.	24.	09
31	615.	153	10.	26.	57
32	635.	99	6.	29.	45
33	655.	45	3.	02.	34
34	674.	356	1.	05.	22
35	694.	302	7.	08.	10
36	714.	248	[illegible]	10.	59
37	734.	194	11.	13.	47
38	754.	140	7.	16.	35
39	774.	86	3.	19.	24
40	794.	3	1.	22.	12
41	813.	343	7.	25.	00
42	833.	289	3.	27.	49
43	853.	235	0.	00.	37